

IN THE SPECIFICATION

On page 2, line 14, delete “PSA” and substitute in its place and stead --PAS--. In this regard, the second full paragraph on page 2 should read as follows:

The PAS camera is much less expensive and does not allow the user to view the scene through the primary lens system. Instead, the optical viewfinder is provided with a secondary lens system that moves in and out in tandem with the primary lens system. In short then, in the PSA PAS camera two separate light paths are established; one light path for the primary lens system to the photosensitive plane of the camera and another light path through the secondary lens system to the viewfinder for the scene preview benefit of the user.

On page 5, line 25, delete “800” and substitute in its place and stead --700--. In this regard, the second full paragraph on page 5 should read as follows:

Considering now the mirror system 21 in greater detail with reference to FIGS. 2 and 5, the mirror system 21 generally includes a pivotally mounted partially reflective, partially transmissive mirror 42 that is mounted in the primary light path 30 between the image sensor 34 and the focusing lens 25 and 26. The mirror 42 attenuates the light traveling to the image sensor 34 to prevent over driving the image sensor 34 for image capture purposes but does not sufficiently attenuate the light traveling to the image sensor 34 to prevent the automatic adjustment of exposure settings for current ambient light conditions via an auto exposure subroutine 700. In this regard, if the ambient light conditions are insufficient to activate the automatic exposure feature of the camera 10, the microprocessor 36 will cause the mirror 42 to be pivoted out of the primary light path 30 allowing the light traveling along the image capture path 40 to reach the image sensor 34 without the light being attenuated. More particularly, the microprocessor 36 under the control of the automatic exposure algorithm ~~800~~ 700 adjusts the exposure settings for the camera 10 and then, either before or after deflecting the mirror 42 from

the primary light path 30 permits the image sensor 34 to capture the desired object image. In this regard, the camera 10 is a true shutterless camera as the light sensitive sensor 34 is always receiving light through the primary lens system 22.

On page 6, lines 1, 13 and 16, and 22 delete “42” and substitute in its place and stead --48--. In this regard, the first two full paragraph on page 6 should read as follows:

The digital camera 10 further comprises an optical viewfinder system 42 48 (FIG. 7) that includes a micro display 44 and a secondary lens system 43 for gathering and focusing light emanating from the object to be captured or from the digital image of the captured object via the micro display 44. A path selecting mirror 46 forming part of the mirror system 21, is mounted in a through-the-lens light path 50 for either independent or simultaneous movement with the partially reflective partially transmissive mirror 42. In this regard, the path selecting mirror 46 is mounted within the operating system compartment 14 in the through-the-lens light path 50 that intercepts the light traveling along the primary light path 30 after the light has been deflected into the through-the-lens light path 50 via the partially reflective partially transmissive mirror 42. The mirrors 42 and 46 operate under the control of the microprocessor 36 to permit a user to either preview an object image to be captured via the through-the-lens light path 50 or review a captured object image via a review light path 60. In short then, the optical viewfinder system 42 48 under the control of the microprocessor 36 selectively permits a user to visualize either an object or scene to be captured or alternatively, once an object image or scene is captured, to visualize the captured object or scene through the viewfinder system 42 48 without the use of an externally visible display device.

In order to permit the user to focus the camera 10 for the eye of the user relative to previewing and reviewing an object image, the secondary lens system 43 includes a secondary set of lenses, indicated generally at 61 and a redirecting mirror 62 for causing light from the object image or the micro display 44 to be focused into a housing mounted diopter 64 having a rim adjustor 66. The rim adjustor 66 rotates under the control of the user to change or adjusts the

focus of the optical viewfinder system ~~42~~ 48 so that either a captured image displayed on the micro display 44 or a through-the-lens object image being previewed prior to capture appears "in focus" to the eye of the user.

On page 9, lines 3 and 16 delete "diaopter" and substitute in its place and stead --diopter--. Also on page 10 line 4, delete "42" and substitute in its place and stead --48--. In this regard, first, and the third full paragraphs on page 9 should read as follows:

Next the user activates the menu/image mode switch 76 to place the camera in the image mode of operation. The user may verify this mode of operation by looking through the diaopter 64 to verify through-the-lens operation. That is, the user will be able to see an object or scene to be captured through the viewfinder system ~~42~~ 48 via the ~~diaopter~~ diopter 64.

Next the user may desire to change the image to be captured by zooming the camera 10 in or out using the pushbuttons 86 and 88 respectively. In this regard, the user releases the capture object image switch 84 and activates either pushbutton 86 or pushbutton 88 to acquire a desired image to be captured. When the user is satisfied with the image to be captured as viewed via the ~~diaopter~~ diopter 64, the user once again depresses the capture object image switch 84 to the first stop position permitting the camera 10 to set the focus and exposure settings for the camera 10. If the user is satisfied with the image to be captured, the user simply depresses the capture image pushbutton 84 to its fully depressed or second stop position.

On page 10, line 11, delete "46 and 48" and substitute in its place and stead --42 and 46--. In this regard, the second full paragraph on page 10 should read as follows:

Upon releasing the captured image pushbutton 84, the micro processor 36 under control of the capture image algorithm 600, causes the mirrors ~~46 and 48~~ 42 and 46 to swing or pivot back to their original positions once again permitting the user to view an object of scene to be

capture via the through the lens light path 50. The above described image capture process is then repeated a desired number of times or until the storage device 38 is full whichever occurs sooner.

On page 10, line 25, delete “48” and substitute in its place and stead --42--. In this regard, the third full paragraph on page 10 should read as follows:

Considering now the camera 10 in still greater detail with reference to FIG. 7, when the user depresses the capture object image switch 84 to the first stop position, the microprocessor 36 under control of the auto exposure algorithm 700 determines a proper exposure setting for the image sensor 34. More particularly, when the micro processor 36 receives an adjust focus signal from the image capture switch 84 being depressed to the first stop position, the microprocessor 36 during a first sampling period T_1 samples the ambient light output signal from the image sensor 34. The sampling period T_1 is a short sampling period as there is no need to sample the entire image to be captured. Instead, the algorithm 700 is only interested in sampling the intensity of the light entering the camera 10 via the primary light path 30 and as attenuated by the mirror 48 42 before reaching the image sensor 34 via the fixed mirror 32 and image capture path 40.

On page 11, line 9, delete “48” and substitute in its place and stead --42--. In this regard, the first full paragraph on page 11 should read as follows:

If the ambient light output signal from the image sensor 34 does not exceed a given threshold level, the microprocessor 36 causes the mirror 48 42 to pivot out of the primary light path 30 allowing light entering the primary lens system 22 to be directly focused on the image sensor 34 without being attenuated. The steps of subdividing, assigning, and forming are repeated to locate another corresponding exposure setting or level to be applied to change the gain settings of the image sensor 34 to achieve a desire exposure level.

On page 12, lines 14, 23, and 25 delete “42” and substitute in its place and stead --48--. In this regard, the fourth paragraph on page 12 should read as follows:

Considering now the viewfinder system ~~42~~ 48 in greater detail with reference to FIGS. 2 and 5, the mirror system 21 includes a support arm 81 mounted for pivot movement within the housing 12. The support arm 81 is coupled to a motor 83 forming part of a motor servo system 96 that is responsive to the microprocessor 36. The motor servo system 96 and more particularly the motor 83 is also coupled the focusing lens 25 and 26 respectively to facilitate their movement along the primary light path 30 for image focusing purposes. The support arm 81 has mounted at its distal end the path selecting mirror 46. In this regard, when the support arm 81 pivots about its longitudinal axis, the path selecting mirror 46 is pivotally moved into the through-the-lens light path 50. When the path selecting mirror 46 is so positioned, the viewfinder system ~~42~~ 48 is blocked from observing the light traveling along the primary light path 30. The path selecting mirror 46 is also so positioned to permit the viewfinder system ~~42~~ 48 to observe light originating from the micro display 44.

On page 13, lines 8 and 22 delete “42” and substitute in its place and stead --48--. In this regard, the first full paragraph on page 13 should read as follows:

The image capture system 20 also includes a pivotally mounted mechanical linkage 85 that is coupled to the motor 83. The support arm 81 has mounted at its distal end the partially reflective partially transmissive mirror 42. In this regard, when the mechanical linkage 85 pivots from a blocking position to an open position, the mirror 42 is moved into the through-the-lens light path 50 blocking the viewfinder system ~~42~~ 48 and sufficiently opening the primary light path 30 to permit light to reach the deflection mirror 32 without being attenuated. In the preferred mode of operation the mirror 42 and the mirror 46 move simultaneously. However it should be understood by those skilled in the art that the mirrors 42 and 46 can be moved independently of one another to accomplish the same result. Thus for example, under low ambient light conditions when the user depresses the image capture pushbutton 84 to a half way position, the mirrors 42

and 46 remain stationary while the auto exposure and auto focus algorithms 700 and 800 are executed by the microprocessor 36. In this regard, if there was insufficient ambient light the capture image routine 600 may delay the moving of the path selecting mirror 46 when the user fully depresses the pushbutton 84. In this situation, the capture image routine 600 first causes the mirror 42 to be moved into the through-the-lens path 50 allowing the auto exposure algorithm 700 to adjust the exposure setting of the camera prior to capturing the object image. Once the auto exposure subroutine 700 is executed, the capture image routine 600 proceeds by capturing the image and moving the path selecting mirror 46 to permit the user, via the viewfinder system 42 48, to observe light originating from the micro display 44. In this example therefore, the mirrors 42 and 46 move independently of one another and not simultaneously as described in the preferred embodiment of the present invention.

On page 14, lines 13 and 16 delete “48” and substitute in its place and stead --42--. In this regard, the second full paragraph on page 14 should read as follows:

Considering again the decision step 604, if a determination is made at the decision step 604 that the image capture switch 84 had previously been fully depressed within T seconds, the image capture routine 600 proceeds to the command step 606 that causes the partially reflective partially transmissive mirror 48 42 to be pivoted out of the primary light path for t milliseconds. The time period t milliseconds is a sufficient period of time to permit the image sensor 34 to capture the light indicative of an object image and to convert the captured light into an electrical signal indicative of the object image. In this regard, when the mirror 48 42 is pivoted out the primary light path and into the secondary light path blocking the user from seeing the object image passing through the primary lens.

On page 16, lines 10 “_____” and substitute in its place and stead --36--. In this regard, the first full paragraph on page 16 should read as follows:

The subroutine then proceeds to a convert command 710 that retrieves each segment and assigns each retrieved segment a binary value. A binary one is established for a given segment if its gray level value exceeds a predetermined luminance level of about eighteen percent. If the

given segment does not exceed the about eighteen percent threshold value, the segment is assigned a binary zero value. The assigning of binary values continues until all segments in the arrangement have been assigned a one or zero value. The assigned values are stored via a store command 712 and are subsequently utilized as a pointer. The subroutine then advances to a set exposure level command 714 where the microprocessor 36 retrieves an exposure value that corresponds to a desired exposure setting based on the determined pointer value. The retrieved exposure value is applied to the camera 10. The subroutine then goes to a return command 716 that returns control to the main program at the call command 622 (FIG. 6).